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*RICHVALE IRRIGATION DISTRICT*

*GROUNDWATER MANAGEMENT PLAN*

*ADOPTED NOVEMBER 15, 1995*

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1.0: Introduction: Assembly Bill 3030, commonly referred to as the Groundwater Management Act, was authored by California State Assemblyman Jim Costa and signed into law by Governor Wilson in October of 1992. The Act lists 12 components that may be included in a groundwater management plan to the extent applicable, the 12 components are considered in evaluating and operating the Richvale Irrigation District (hereinafter "Richvale") so that groundwater can be managed within the District and coordinated to maximize the total water supplies available while protecting groundwater quality.

1.1: Groundwater Basin Management: Department of Water Resources Bulletin 118-80 defines groundwater basin management as including planned use of the groundwater basin yield, storage space, transmission capability, and water in storage. Groundwater basin management includes:

- a. Protection of natural recharge and use of intentional recharge;
- b. Planned variation in amount and location of pumping over time;
- c. Use of groundwater storage conjunctively with surface water from local and imported sources; and
- d. Protection and planned maintenance of groundwater quality.

1.2: Section 3, Chapter 947, Statutes of 1993: The Department of Water Resources shall, on or before January 1, 1998, prepare and publish, in a bulletin of the Department published pursuant to section 130 of the Water Code, a report on the status of groundwater management plans adopted and implemented pursuant to Part 2.75 (commencing with section 10750) of Division 6 of the Water Code.

2.0: Purpose: It is the purpose of Richvale, by adopting a groundwater management plan, to manage and monitor groundwater resources existing and available within the District boundary identified by Exhibit "A" to the Joint Districts' agreement on diversion of water from the Feather River as entered into on May 27, 1969 with the State of California, DWR. Additionally, it is the intent of Richvale to coordinate and cooperate with other local private or public water purveying public agencies for the purpose of preserving, protecting and monitoring Basin area groundwater extraction, distribution, allocation or exportation insuring compliance with Water Code Sections 1745.10, *et seq.*

3.0: History of the Formation, Operation, Acquisition, Distribution and Maintenance of Water Supplies: Richvale has acquired and/or monitors the provision, transmission, operation, maintenance and distribution of water for agricultural and environmental

purposes. The background of Richvale in the provision of water services is set forth in paragraphs 3.1 through 3.4

3.1: Formation of Richvale: Richvale was organized pursuant to the authority of Division 11 of the California Water Code. Following formation, the District joined with three other districts; i.e., Sutter Extension Water District, Biggs-West Gridley Water District and Butte Water District to coordinate the acquisition, maintenance and operation of a water supply and distribution facility. Richvale thereafter joined with these three districts in the purchase and acquisition of water rights and a canal system from Sutter Butte Canal Company. The four districts and the Sutter Butte Canal Company entered into an agreement dated July 12, 1956 covering the maintenance and operation of the canal system. The agreement of July 12, 1956 was amended by: (a) an agreement and conveyance dated September 21, 1966 entered into by the district; and (b) an agreement and conveyance dated April 11, 1969 entered into at Biggs and Richvale and consented to by Butte and Sutter. The districts then entered into four additional contracts effecting their operation, diversion facilities, main canal and available water including: (a) an agreement dated July 6, 1964 entered into by the State of California acting by and through the Department of Water Resources; (b) an agreement on diversion of water from the Feather River dated May 27, 1969 entered into by the State of California acting by and through the Department of Water Resources; (c) a water sale and exchange agreement entered into by Pacific Gas and Electric Company and the districts on or about May 27, 1969; and (d) a consent agreement dated May 27, 1969 entered into by Pacific Gas and Electric Company and the districts.

The districts revised their operating agreement of July 12, 1956 as made necessary by a series of four contracts which are discussed above. Richvale shares water rights without allocation as to district boundaries with the three districts discussed above as much of the return flow from the use of said water rights finds its way into drains and natural channels and is recaptured and used by all four districts.

The four districts created the Joint Board with powers to control, maintain and operate the joint water distribution facilities of each district, together with causing rainfall, snowfall, weather, evaporation, hydrographic, engineering and other data and records now available and continuously accumulated relating to Feather River water flows, water diversion rights and use of water within the districts. Richvale is allocated 27 percent of 555,000 acre-feet of water annually acquired by the joint districts pursuant to historic pre-1914 water rights subject to deficiency limitations in the May 1969 agreement.

3.2: History of Water Supply Acquisition Whether Surface or Ground: Refer to paragraph 3.1 for Richvale's history of water supply acquisition.

3.3: History of Distribution of Water Supplies: Richvale distributes its water supplies annually during the irrigation season generally commencing by charging its water distribution system with surface water supplies from Lake Oroville as early as February each year and generally completing its water distribution by October 31 each year; provided further that Richvale may continue water distribution from November to January for rice straw incorporation and to benefit wildlife habitat in the Butte Basin and to comply with the ARB's restrictions on rice straw burning. Water supplies distributed during times of shortage are allocated pursuant to a proration and water duty imposed upon crops grown by district landowners as determined by the Board of Directors. Water shortages have occurred on a more frequent basis in the last 20 years and notably the drought years of 1976 and 1977 and the drought commencing in 1987 and running through 1994. Curtailment was imposed on the District under its contract in 1977 and in 1991 and 1992.

3.4: History of Operation and Maintenance of Water Supplies: See paragraphs 3.1 through 3.3. Additionally, the district's manager coordinates the acquisition, operation and distribution of all water utilized by district landowners and water users for agricultural production each year. Programs of water conservation are encouraged by the district in order to lessen or at least maintain the water duty for each crop grown within the district.

4.0: Hydrogeology of Richvale: Attached is a hydrographic map of Richvale which identifies the agricultural water supply and distribution facilities. Additionally, Richvale hereby adopts for District use a groundwater model developed by the Butte Basin Water Users Association in the summer of 1995 which groundwater model will assist the District in monitoring the safe yield of groundwater from lands within District boundaries.

5.0: Richvale's Adoption of Groundwater Management Plan Issues Set Forth in Water Code Section 10753.7: Richvale adopts components relating to a groundwater management plan which are set forth in Water Code Section 10753.7.

5.1: Control of Saline Water Intrusion: Richvale is authorized to take practical, reasonable and feasible steps to insure against adverse impacts created by demonstrated saline water intrusion within that portion of the Butte Sub-Basin managed by Richvale. If needed or as required, Richvale will establish and maintain a regular program of groundwater quality testing and monitoring in order to establish a baseline quality criteria for groundwater which is available from Richvale and includes an estimated saline content. Such monitoring efforts will routinely test on a periodic basis as determined by Richvale in order to insure adequate water quality and that

baseline water qualities are not adversely impacted or deteriorating as a result of saline water intrusion.

5.2: Identification and Management of Well Head Protection Areas and Recharge Areas: Richvale does not own a well system nor does it distribute potable water and has no district operated recharge areas. In the future, should recharge areas be established the district shall manage such areas in order to monitor and insure the quality of the groundwater resource within the district.

5.3: Regulation of Migration of Contaminated Groundwater: Currently not a problem. However, Richvale will periodically test certain areas within the district where it is believed that saline water intrudes in order to insure the minimization of any adverse impact to agricultural production, existing surface water supplies and existing groundwater aquifers. The goal will be to eliminate migration of any groundwater which is contaminated.

5.4: Administration of a Well Abandonment and Well Destruction Program: Richvale defers to Butte County as a domestic well regulator to administer well abandonment and well destruction programs. Richvale will comply with demands for well abandonment and well destruction particularly those that exceed an unsafe TDS level as determined by Richvale.

5.5: Mitigation of Overdraft Conditions: In California, "overdraft" means the condition of a groundwater basin in which the amount of water withdrawn by pumping exceeds the amount of water replenishing the basin over a period of time and also the point at which extractions from the basin exceeded safe yield plus any temporary surplus. Also in California, a groundwater aquifer's "safe yield" means the maximum quantity of water which can be withdrawn annually from a groundwater supply under a given set of conditions without causing overdraft or adverse water quality conditions. Richvale currently knows of no overdraft conditions or conditions of threatened overdraft that exist within Richvale boundaries. Should conditions of overdraft or threatened overdraft occur within Richvale; the district will cooperate with state and federal agencies to monitor and remedy the impacted area by learning the cause of the overdraft situation and attempting to implement factors which will 1) determine and maintain a safe annual yield of groundwater for use within Richvale in order to supplement available surface water supplies for the growing of crops on lands within Richvale without producing overdraft conditions; 2) develop data and information which identifies impacts on groundwater with the neighboring areas that might be effected by groundwater use within Richvale which may be part of a conjunctive use program developed in cooperation with the State of California or other potential qualified water transferees; 3) establish mitigation measures to offset

identified adverse impacts of groundwater extraction; and 4) establish quantitative limitations on groundwater extractions from particular areas and establishing criteria for well spacing and operations within the district to limit adverse impacts of groundwater extractions on wells within and without the district.

5.6: Replenishment of Groundwater Extracted by Water Producers: Richvale will encourage groundwater replenishment where such groundwater is extracted by water producers including the continued application of pre-1914 surface water supplies. Richvale will continue to monitor and develop data in order to insure the protection and use of the groundwater resource for the benefit of landowners and water users within Richvale.

5.7: Groundwater Level and Storage Monitoring: Richvale will determine the static groundwater level within the various sub-basins in district boundaries on an annual basis and will determine the static groundwater water level before the start of each irrigation season and at the conclusion of each irrigation season. Monitoring of the groundwater storage within different sub-basins in district boundaries will be commenced on an as-needed basis to insure that an overdraft condition described in Water Code Section 1745.10 does not and will not exist.

5.8: Development of Relationships with State and Federal Regulatory Agencies: Richvale, as a member of the Joint Districts, entered into an agreement with the State of California Department of Water Resources in May of 1969 providing for the storage and delivery of historically acquired pre-1914 rights from the Lake Oroville complex subject to certain deficiency requirements during times of drought. Richvale will continue to develop and maintain good working relationships with the staff of the Department of Water Resources as well as other federal and state agencies on an as-needed basis to protect and preserve both ground and surface water rights for the benefits of landowners and water users within Richvale.

5.9: Facilitating Conjunctive Use Operations: Groundwater supplies available within Richvale are recharged annually by numerous factors including precipitation and the application of surface and/or extracted groundwater supplies for the irrigation of crops. The quantity and timing of recharging Richvale's service area as a sub-basin of the Butte Basin depends upon a number of factors many of which are within the control of landowners, water users, the District manager, employees and Board of Directors of Richvale.

5.9.1: District Water Shortages: Current District bylaws, rules and regulations and governing act statutes allow Richvale to

distribute available water supplies to District landowners in the event of shortages on a pro rata basis which Richvale's Board of Directors determines based upon numerous factors including types of crops grown, timing of agricultural water needs, available groundwater supplies, etc. See Water Code Sections 22252.3, *et seq.* If additional supplies are needed for Richvale purposes, Richvale reserves its rights to require uses of groundwater by growers in those circumstances where water shortages and/or failure or inadequate capacity of facilities causes shortages throughout other areas of the District, upon payment of compensation. The terms of any District/landowner agreement regarding quantities of groundwater, maintenance and operation of facilities, term, compensation and distribution are the subject of negotiations between Richvale and the landowners.

5.9.2: District Water Transfers: Richvale has engaged in and will continue to reserve operational flexibility to engage in transfers of its surface water supplies to the State of California and/or other qualified purchasers of water in circumstances where shortages of water cause the potential for hardship in other areas of the State which have access to state or federal water project facilities and where Richvale has a surplus of water supplies conserved by programs benefitting their landowners and water users. Prior to undertaking any program, Richvale will evaluate any adverse economic or environmental impact of such conjunctive use program. In this way, groundwater storage capacity of Richvale can be used in a conjunctive manner with surface water supplies in order to assist other areas in need of water in addition to landowners within the District and to the benefit of the District and its landowners, as long as such programs do not 1) exceed the safe annual yield of the aquifer; 2) result in conditions of overdraft or otherwise fail to comply with provisions of California Water Code Section 1745.10; and 3) result in uncompensated adverse impacts on neighboring landowners affected by the program.

5.9.3: District Approval of New Wells: To facilitate the monitoring of groundwater extraction and use within District, subsequent to January 1, 1996 any landowners desiring to construct and install a well within Richvale may be required to prepare a written request specifying 1) size of the well to be constructed, 2) identify the location of the well; 3) the approximate distance in feet from all other existing wells within

3,000 feet of the proposed installation of the new well (inside or outside District boundaries); 4) capacity of the well; 5) depth of the well; and 6) service needs. The written request prepared in writing shall be delivered to Richvale's manager who shall submit the request to the District Board of Directors for approval or disapproval at the next regular or special District Board meeting. Approval of construction and installation of a new well may be conditioned upon 1) timing of well waters extracted for agricultural operations or used for conjunctive use purposes either through outside District water transfers or transfers within District; 2) impacts on neighboring well owners (inside or outside District's service area) and whether such impacts can be reasonably and feasibly mitigated; 3) well metering; 4) District well inspection; 5) District ability to curtail use of groundwater extracted pursuant to a conjunctive use program; and 6) any other action which the District may deem necessary or appropriate pursuant to its bylaws, rules, regulations, and existing state or county rules applicable to such construction.

6.0: Implementation of Groundwater Management Plan: Richvale shall continue to implement this groundwater management plan and develop a groundwater management program which further elaborates upon the contents of this plan and engages in continuing cooperation and coordination with other Butte Basin Groundwater Users.

6.1: Annual Coordination Meeting: Pursuant to California Water Code Section 10755.3 Richvale shall meet, coordinate and cooperate with other local agencies within the Butte Basin at least annually to coordinate groundwater management programs.



